AMENDMENTS TO THE SPECIFICATION:

Please replace the originally filed specification with a substitute specification as attached along with a marked-up copy of the originally filed specification.

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of all claims as pending in the application, including newly added claims 21-22 and claims 1-4, 6, 11-14 and 20 as amended as follows:

Claim 1 (Currently Amended): ~~Method~~A method of measuring dimensions and alignment error of ~~a~~ thin film magnetic ~~head to monitor a lapping process~~heads formed on a substrate, ~~including~~comprising the steps of:

illuminating a magnetoresistance effect element and a resistance detector element which is formed for monitoring ~~the~~a lapping process, both of which are formed on ~~a~~ the substrate, with illuminating light whose wavelength is 300 nm or less;

forming an image by imaging light reflected from said elements;

converting said image to an image signal through photoelectric conversion; and

detecting dimensions and alignment error ~~geometrical information~~ of the ~~abovementioned~~ magnetoresistance effect element and the ~~above-mentioned~~ resistance detector element formed on the substrate ~~for monitoring the lapping process~~ from said image signal.

Claim 2 (Currently Amended): ~~Method of measuring dimensions and alignment of a thin film magnetic head~~A method according to claim 1, wherein

the illuminating light includes a wavelength component of 248 nm.

Claim 3 (Current Amended): ~~Method of measuring dimensions and alignment of a thin film magnetic head~~A method according to claim 1, wherein the illuminating light includes a wavelength component of 266 nm.

Claim 4 (Currently Amended): ~~Method of measuring dimensions and alignment of a thin film magnetic head~~A method according to claim 1, wherein the illuminating light includes a wavelength component of 213 nm.

Claim 5 (Cancel)

Claim 6 (Currently Amended): ~~Method of measuring dimensions and alignment of a thin film magnetic head~~A method according to claim 1, wherein the magnetoresistance effect element and the resistance detector element ~~for monitoring the lapping~~ are covered with end face protection films.

Claims 7-10 (Withdrawn)

Claim 11 (Currently Amended): ~~Apparatus~~An apparatus for measuring dimensions and alignment error of thin film magnetic ~~head~~heads formed on a substrate ~~during a lapping process~~, comprising:

a light source for emitting light whose wavelength is 300 nm or less;

illuminating means for illuminating a magnetoresistance effect element and a resistance detector element which is formed for monitoring ~~the~~a lapping process, both of which are formed on a substrate, with illuminating light emitted from said light source;

imaging means for obtaining an optical image of said substrate, illuminated by said illuminating means;

image pick up means for converting an optical image of said substrate, which is imaged by said imaging means, to an image signal through photoconversion; and

~~geometrical information~~ detecting means for detecting dimensions and alignment error ~~geometrical information~~ of said magnetoresistance effect element and said resistance detector element formed on the substrate ~~for monitoring the lapping~~ from said image signal that is obtained by said image pick up means.

Claim 12 (Currently Amended): ~~Apparatus for measuring dimensions and alignment of a thin film magnetic head~~An apparatus according to claim 11, wherein said light source emits light having a wavelength of 248 nm.

Claim 13 (Currently Amended): ~~Apparatus for measuring dimensions and alignment of a thin film magnetic head~~An apparatus according to claim 11, wherein said light source emits light having a wavelength of 266 nm.

Claim 14 (Currently Amended): ~~Apparatus for measuring dimensions and alignment of a thin film magnetic head~~An apparatus according to claim 11, wherein said light source emits light having a wavelength of 213 nm.

Claims 15-16 (Cancel)

Claims 17-19 (Withdrawn)

Claim 20 (Currently Amended): ~~Method of measuring dimensions and alignment of a thin film magnetic head~~A method according to claim 1, wherein

the illuminating light has a wavelength of 200 nm.

Claim 21 (Newly Added): A method according to claim 1, further comprising a step of displaying the measured results at least one of the variations in dimensions of the elements or distribution of alignment error on a display.

Claim 22 (Newly Added) An apparatus according to claim 11, further comprising a display for displaying the measured results at least one of the variations in dimensions of the elements or distribution of alignment error.

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include changes to FIGs. 3, 4, 7, 9, 11-14 and 16. These sheets of drawings, which includes FIGs. 3, 4, 7, 9, 11-14 and 16, replaces the original sheets of drawings, including FIGs. 3, 4, 7, 9, 11-14 and 16.

Attachment: Replacement Sheets.